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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,053	01/17/2002	Daniel W. Wong	1376.0100420	1448

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EXAMINER

TRAN, PHUOC

ART UNIT PAPER NUMBER

2621

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,053

Applicant(s)

WONG ET AL.

Examiner

Phuoc Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-27 is/are pending in the application.
- 4a) Of the above claim(s) 17 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-16, 19-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Applicant's arguments filed 10/14/05 have been fully considered but they are not persuasive.

Applicants argue that the claim feature “motion estimation is performed to determine the type of data” is supported in the specification on page 4, lines 12-26 and the claim language itself is sufficient disclosure. However, it is unclear as to how and when “the type of data” is determined by performing motion estimation. Please explain. The claimed invention as a whole is not adequately described if the claims require an essential or critical feature which is not adequately described in the specification and which is not conventional in the art or known to one of ordinary skill in the art.

Applicants argue that “there is no disclosure in Jang that block 140 may operate as both a DCT circuit and an IDCT circuit in one application”. In reply, block 140 in Jang performs DCT in a first mode of operation (i.e., compression operation) and performs IDCT in a second mode of operation (i.e., decompression operation). Therefore, Jang et al disclose the claim limitations.

Applicants argue that “Chen does not disclose a system or method that performs a first transform in one mode of operation and a second transform in a second mode of operation wherein the second transform is an inverse transform relative to the first transform”. In reply, Chen et al disclose using a processor to perform both DCT and IDCT transforms using matrix tables (see Fig. 3, items 214, 208; col. 4, lines 1-14; col. 5, lines 1-5; col. 6, lines 19-56; col. 7, line 23 – col. 8, line 60).

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification fails to provide support for claim feature regarding “motion estimation is performed to determine the type of data”.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 4-8, 19, 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Jang et al [U. S. Patent No. 5,481,487].

As to claims 1, 6-8, Jang et al disclose a method comprising the steps of: receiving first data associated with a block of data at a video processor (Fig. 4, input X or Z of item 101)); when in a first mode of operation, accessing table data in a table in a first manner to perform a first transform of the first data (col. 6-30; DCT transform); and when in a second mode of operation, accessing table data in the table in a second manner to perform a second transform of the first data (col. 6-30; in the case IDCT transform), wherein the second transform is an inverse transform relative to the first transform (col. 6-30; DCT transform and IDCT transform).

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As to claim 2, Jang et al disclose that the block type of video data is associated with 8X8 image data (col.9, lines 6-11).

As to claim 4, Jang et al disclose determining one of the first mode of operation or the second mode of operation based on a tag associated with the first data, wherein the tag identifies a transform associated with the first data (Fig. 4, input X or Z of item 101; col. 6-30; DCT is performed on X input while IDCT is performed on Z input)

As to claim 5, Jang et al disclose accessing the table data in the table in a row-major scheme (col. 9, lines 9-10) and accessing in a second manner includes accessing the table data in the table in a column-major scheme (col. 9, lines 17-18).

Claims 19, 21-23 simply recite a system corresponding to the method of claims 1, 4-8. Therefore, they are rejected for the same reasons.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 9, 12-16, 24-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen et al [U. S. Patent No. 6,618,442].

As to claim 9, Chen et al disclose a method comprising the steps of: receiving data associated with a block of data at a video processor (col. 4, lines 1-6; col. 6, lines 45-48); when the block of data is of a first type, providing a first table to a transform engine to transform the

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data (col. 6, lines 52-56; col. 8, lines 1-22); and when the block of data is of a second type, providing a second table to the transform engine to transform the data (col. 6, lines 52-56; col. 8, lines 24-60). Chen et al disclose using a processor to perform both DCT and IDCT transforms using matrix tables (Fig. 3, items 214, 208; col. 4, lines 1-14; col. 5, lines 1-5; col. 6, lines 19-56; col. 7, line 23 – col. 8, line 60).

As to claims 12, 14, Chen et al disclose determining the type of data (col. 6, lines 52-56)

As to claim 13, Chen et al inherently disclose that motion estimation is performed to determine the type of data (col. 5, lines 1-6; col. 6, line 17; note that in DV format, if the motion between two fields is small, 8-8 DCT mode is used. If the motion between two fields is large, 2-4-8 DCT mode is used)

As to claims 15-16, Chen et al disclose that 8-8 image data or 2-4-8 image data is identified and a different DCT matrix for 8X8 DCT mode or 2-4X8 DCT mode is used (col. 6, lines 52-56; col. 7, line 23 – col. 8, line 60).

Claims 24-27 simply recite a system corresponding to the method of claims 9-10, 12-16. Therefore, they are rejected for the same reasons.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 3, 11, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jang et al and Chen et al.

As to claims 3, 20, Jang et al disclose all the claim limitations as mentioned above except for 2-4-8 image data. Chen et al teach it is known to convert DV image data which contains both 8x8 image data and 2-4-8 image data into MPEG image data. It would have been obvious to one of ordinary skill in the art to apply Chen et al 's teachings in Jang et al for the purpose of converting DV image data into MPEG image data. Such modification would enhance Jang et al's device in that it can convert DV image data into MPEG image data using the DCT/IDCT unit.

As to claim 11, Chen et al disclose all the claim limitations as mentioned above except for using a row-major scheme and a column-major scheme. Jang et al teach it is known to use row-major scheme with a DCT circuit (col. 9, lines 9-10) and a column-major scheme with an IDCT circuit (col. 9, lines 17-18). It would have been obvious to one of ordinary skill in the art to apply Jang et al's teachings in Chen et al in order to efficiently utilize DCT/IDCT circuit.

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9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. This application contains claims 17-18 drawn to an invention nonelected with traverse in communication(s) filed on 4/22/05. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuoc Tran whose telephone number is (571) 272-7399. The examiner can normally be reached on MON-FRI.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571) 272-7695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


PHUOC TRAN
PRIMARY EXAMINER